

Claims 1-5 (previously cancelled).

6. (previously amended). A system for producing ozone through corona discharge comprising a) an electrostatic device used in the production of ozone comprising at least one metallic sharp-tipped component mounted on a metallic surface which in turn is mounted on an insulator, and b) a stream source of negatively charged fly ash particles configured to impart sufficient charge to said at least one metallic sharp-tipped component to generate an electric field thereto to produce ozone through corona discharge thereby ozonizing said fly ash particles.

7. (previously amended). The system of claim 6 wherein the metallic surface is cylindrical and metal-tipped components surround the cylindrical surface.

8. (previously amended). The system of claim 6 wherein the metallic sharp-tipped component is a spike coming to a sharp point or a wire coming to a sharp point.

9. (currently amended). The system of claim 6 set in a pipe for receiving said stream source of negatively charged fly ash particles and wherein a baffle has been placed up-stream of the system to prevent fly ash abrasion of the metal components of system.

10. (currently amended). In combination a system A system used in the production of ozone through corona discharge comprising, 1) a non-metallic pipe having an internal surface and carrying a fly ash stream, said non-metallic pipe having mounted on its internal surface at least one metallic sharp-tipped component with said fly ash stream being a source of negatively charged fly ash particles configured to impart sufficient charge to said at least one metallic sharp-tipped component to on the surface thereof mounted in a non-metallic pipe carrying a fly ash stream and used in said

pipe generate an electric field thereto to produce ozone through corona discharge thereby ozonizing said fly ash particles.

11. (currently amended). In a system through which negatively charged fly ash particles of fly ash with unacceptably high levels of carbon flow in an ash stream comprising a channel containing therein a metal plate having a flat surface with at least one metal spike on said flat surface mounted thereon and capable of producing ozone through corona discharge and wherein when said negatively charged fly ash particles with unacceptably high levels of carbon impinge said at least one metal spike on the flat surface of the metal plate thereby imparting sufficient charge to said at least one metal spike to generate an electric field thereto to produce ozone through corona discharge thereby ozonizing said fly ash particles.

12. (currently amended). In the system of claim 11 wherein the metal plate is supported on an insulated base so that the metal plate, having at least one metal spike thereon, can be placed in a pipe and said channel such that negatively charged carbon containing fly ash particles impinge said at least one spike creating a corona discharge producing ozone which will contact and pacify the carbon containing fly ash.

13. (currently amended). In a system through which negatively charged particles of fly ash with unacceptably high levels of carbon flow comprising a channel containing therein a metal plate with a flat surface having affixed on said flat surface a series of wires or spikes capable of producing ozone through corona discharge when said negatively charged particles with unacceptably high levels of carbon impact said series of wires or spikes thereby imparting sufficient charge to said series of wires or spikes to generate an electric field thereto to produce ozone through corona discharge thereby ozonizing said particles of fly ash.

Rejections under 35 U.S.C. § 112

Claim 9 has been corrected as suggested by the Examiner.

Claims 10-13 have been amended in a fashion similar to that of allowed claims 6-8. That is, the claims have been amended to reflect that the sharp pointed device in the pipe is impacted by fly ash particles to produce a corona discharge producing ozone to ozonize the fly ash particles.

Rejection under 35 U.S.C. § 103

Claims 10-13 stand rejected over *IKEDA et al* (5,445,798).

Note that *Ikeda et al* is directed to a microbe propagation apparatus employing an external gas, a metallic needle electrode, a high voltage generator to apply high voltage between the metallic needle electrode and a metallic grid-like electrode to produce a corona discharge producing ozone to inhibit microbe propagation. On the other hand, while it is true that applicant's invention involves corona discharge, all grounds of comparison stop there because applicant's corona discharge is performed in a fly ash stream and is intended to ozonize fly ash.

The claims have been amended to more clearly point out that a corona discharge is generated in a fly ash stream to produce ozone and to ozonize the particles of fly ash. This feature is a novel and unobvious concept not shown by *Ikeda et al*. Accordingly, it is requested that the Examiner reconsider and withdraw the ground of rejection over *Ikeda et al*.

Request to have Amendment Entered

Applicant requests that the amendment after final be entered. The amendment was required in part because of the Examiner's more detailed explanation of *Ikeda et al*.

Summary

All outstanding issues have been addressed and this application would now appear to be in condition for allowance.

Respectfully submitted,

March 31, 2004

Date

Sam Rosen

Sam Rosen
Reg. No. 37,991
Attorney for Applicant

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Date: March 31, 2004
Express Mail Label No. EL 884773162 US
By: *Judy Robertson*

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP
502 Washington Avenue, Suite 220
Towson, MD 21204
Phone: (410) 337-2295
Fax: (410) 337-2296

SR/jjr (03/31/04)

C:\Corel\Office7\WPWin7Judy\amend\21398padiv-amendunder1116-Altmann.wpd